

What is claimed is:

[Claim 1] An antenna comprising a mount assembly, a whip assembly, and a junction connecting the whip assembly to the mount assembly, each of the mount assembly and the whip assembly having a transmission line adapted to be connected to each other by at least one connection, wherein the junction has a key and a keyway so that the whip assembly can be joined to the mount assembly in no more than one alignment and thereby avoid twisting and abrading the at least one connection.

[Claim 2] The antenna of claim 1 wherein each of the mount assembly and the whip assembly have a lower frequency transmission line and a higher frequency transmission line for transmitting signals between the mount assembly and the whip assembly, wherein the lower frequency transmission lines will only be connected to each other and the higher frequency transmission lines will only be connected to each other when the whip assembly is joined to the mount assembly.

[Claim 3] The antenna of claim 2 wherein the junction comprises a body portion on the mount assembly with a cavity and first and second connectors within the cavity, the first connector electrically connected to the lower frequency transmission line in the mount assembly, and the second connector electrically connected to the higher frequency transmission line in the mount assembly, and further comprises a coupler assembly on the whip assembly with a mating portion sized to be received within the cavity and third and fourth connectors, the third connector electrically connected to the lower frequency transmission line in the whip assembly, and the fourth connector electrically connected to the higher frequency transmission line in the whip assembly,

wherein one of the cavity and the coupler assembly has the key and the other of the cavity and the coupler assembly has the keyway so that only the first and third connectors can be connected to each other, and only the second and fourth connectors can be connected to each other in the junction.

[Claim 4] The antenna of claim 3 wherein the keyway comprises a chordal wall to form a D shaped opening, and the key comprises a cutout in a cylindrical stub to form a D shaped insert.

[Claim 5] The antenna of claim 3 wherein the key comprises a pin, and the keyway comprises a slot sized to receive the pin.

[Claim 6] A antenna according to claim 1 wherein the whip assembly comprises a lower section assembly, an upper section assembly and a second junction connecting the lower section assembly to the upper section assembly, each of the lower section assembly and the upper section assembly having a transmission line adapted to be connected to each other by at least one connection for transmitting signals between the lower section assembly and the upper section assembly, wherein the second junction has a key and a keyway so that the lower section assembly can be joined to the upper section assembly in no more than one alignment and thereby avoid twisting and abrading the at least one connection.

[Claim 7] The antenna according to claim 6 wherein the keyway is a D shaped cavity and the key is a D shaped insert sized to be received in the D shaped cavity.

[Claim 8] The multiband antenna according to claim 6 wherein the key is a pin and the keyway is a slot sized to receive the pin.

[Claim 9] An antenna comprising a lower section assembly, an upper section assembly and a second junction connecting the lower section assembly to the upper section assembly, each of the lower section assembly and the upper section assembly having a transmission line adapted to be connected to each other by at least one connection for transmitting signals between the lower section assembly and the upper section assembly, wherein the second junction has a key and a keyway so that the lower section assembly can be joined to the upper section assembly in no more than one alignment and thereby avoid twisting and abrading the at least one connection.

[Claim 10] The antenna according to claim 9 wherein the keyway is a D shaped cavity and the key is a D shaped insert sized to be received in the D shaped cavity.

[Claim 11] The antenna according to claim 9 wherein the key is a pin and the keyway is a slot sized to receive the pin.

[Claim 12] The antenna of claim 9 wherein each of the lower section assembly and the upper section assembly have a lower frequency transmission line and a higher frequency transmission line for transmitting signals between the lower section assembly and the upper section assembly, wherein the lower frequency transmission lines will only be connected to each other and the higher frequency transmission lines will only be connected to each other when the lower section assembly and the upper section assembly are joined.